

## AMENDMENTS TO THE CLAIMS

1-31. (Cancelled)

32. (Currently amended) The ~~composition~~ isolated population of stem cells of claim 49, wherein said peripheral tissue comprises olfactory epithelium.

33. (Currently amended) The ~~composition~~ isolated population of stem cells of claim 49, wherein said peripheral tissue comprises tongue.

34-40. (Cancelled)

41. (Currently amended) The ~~composition~~ isolated population of stem cells of any of the claims 49-52, wherein said neural stem cells are transfected with a heterologous gene.

42. (Currently amended) The ~~composition~~ isolated population of stem cells of claim 41, wherein said gene encodes a trophic factor.

43-48. (Cancelled)

49. (Currently amended) ~~A composition comprising an~~ An isolated population of neural stem cells of a mammal, said stem cells produced by a method comprising the steps of:

(a) providing a culture of peripheral tissue containing sensory receptors from said mammal;

(b) isolating neural stem cells from said peripheral tissue, based on the tendency of said neural stem cells to aggregate and form non-adherent clusters in culture, wherein

said neural stem cells express nestin, are self renewing, are capable of producing neurons and glia, and can differentiate into dopaminergic neurons.

50. (Currently amended) ~~A composition comprising an~~ An isolated population of mammalian neural stem cells, wherein said ~~which~~ neural stem cells form non-adherent clusters in culture, are self renewing, express nestin and glutamic acid decarboxylase (GAD), and can differentiate into cell types of the central nervous system.

51. (Currently amended) ~~A composition comprising an~~ An isolated population of mammalian neural stem cells, wherein said ~~which~~ neural stem cells form non-adherent clusters in culture, are self renewing, express nestin, and can differentiate into dopaminergic neurons.

52. (Currently amended) ~~A composition comprising an~~ An isolated population of mammalian neural stem cells, wherein said ~~which~~ neural stem cells form non-adherent clusters in culture, are self renewing, proliferate in an EGF-independent manner, and can differentiate into cell types of the central nervous system.

53. (Cancelled)

54. (Currently amended) ~~The composition~~ isolated population of stem cells of claim 50, wherein said ~~which~~ neural stem cells can proliferate in an EGF-independent manner.

55. (Currently amended) ~~The composition~~ isolated population of stem cells of claim 54, wherein said ~~which~~ neural stem cells differentiate, in the presence of serum, into neurons expressing tyrosine hydroxylase.

56. (Cancelled)

57. (Currently amended) The ~~composition~~ isolated population of stem cells of any of the claims 49-54, wherein said ~~which~~ neural stem cells differentiate, in the presence of serum, into dopaminergic cells.

58. (Currently amended) The ~~composition~~ isolated population of stem cells of any of the claims 49-52 ~~claims 49-54~~, wherein said ~~which~~ neural stem cells are human stem cells.

59. (Cancelled)

60. (Currently amended) An isolated population of mammalian neural stem cells ~~composition~~ of any of claims 49-52 ~~claims 49-54~~, formulated in a pharmaceutically acceptable carrier, auxiliary or excipient.

61-63. (Cancelled)